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SOME CHINESE FRESH-WATER FISHES[1]

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XXVI.—TWO NEW SPECIES OF *PSEUDOGOBIO*

Pseudogobio bicolor, new species

DESCRIPTION OF TYPE.—No. 9678, American Museum of Natural History, from Hokou, northeastern Kiangsi, collected June 22 to July 12, 1926, under the direction of Clifford H. Pope.

Length to base of caudal, 60 mm. Depth in this length, 5.4; head, 4.5. Eye in head, 3; snout, 2.6; interorbital, 4.5; maxillary, 3.4; width of mouth, 4; width of body, 1.5; depth of peduncle, 2.9; its length, 1.4; pectoral, 1; ventral, 1.4.; longest dorsal ray, 1.1; longest anal ray, 1.6; caudal lobe, 1. Barbel in eye, 3.

Dorsal, 9; anal, 7. Scales, 36.

Body little compressed; lower surface of head and breast flattened, pectorals and ventrals in a horizontal plane; vent at one-third the distance from ventral axil

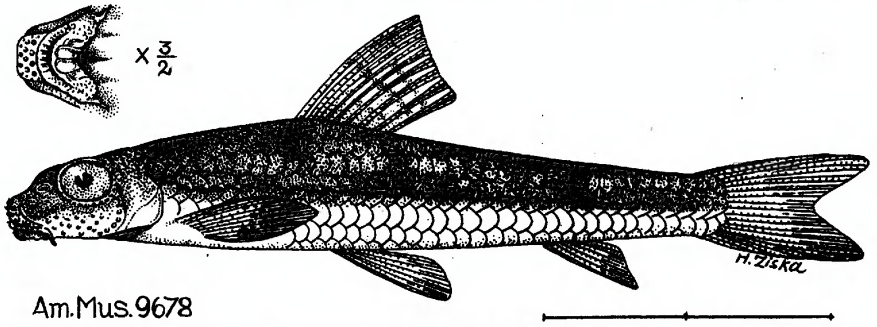

Fig. 1. *Pseudogobio bicolor,* type.

to anal origin. Top of head flat, the orbital rims slightly raised; a depression in the profile between nostrils and end of snout; eye slightly superolateral; mouth small, inferior, curved; maxillary not reaching to below front margin of eye; lips free all round, striate or papillose, flaring at the sides; two enlarged broad flat papillæ at the chin, more than twice the length of those opposite on the upper lip which are slightly enlarged; maxillary barbel small and slender; gill-membranes rather broadly joined to shoulder-girdle under posterior margin of eye. Dorsal and anal without spinous rays; dorsal origin equidistant from end of snout and anal axil; ventral placed under center of dorsal base; pectoral reaching almost or quite to ventral; ventral three-fifths to anal; caudal rather well forked, with pointed lobes. Lateral line complete, almost straight, rising to meet the opercle; breast scale-less backward to pectoral axils.

[1]Publications of the Asiatic Expeditions of The American Museum of Natural History. Contribution No. 104.

[2]Drawings of the type specimens by Mrs. Helen Ziska.

Sharply bicolor; dark above, pale below, the dark to just below lateral line and somewhat intensified in a poorly defined lateral band; dorsal and caudal grayish, former with slight indications of spots.

Though based on a single specimen, this species seems to be quite distinct from other related small gudgeons examined and described by me. Strangely enough, another single specimen of *Pseudogobio* of 78 mm., from this same locality in Kiangsi, is unlike it and seems to be referable to *P. fukiensis*, described from Fukien province, as are four specimens 57 to 64 mm. long, from Kienning, Fukien. A larger series from Kienning, however, thirty specimens 45 to 142 mm. long, are not *P. fukiensis* and were at first confused with *P. labeoides* described from Hainan Island. A quite different lower lip (evenly papillose, with a cross furrow) distinguishes them from this last-named species which has a lip much as in *P. fukiensis* and *P. bicolor*, with two enlarged papillæ or smooth pads.

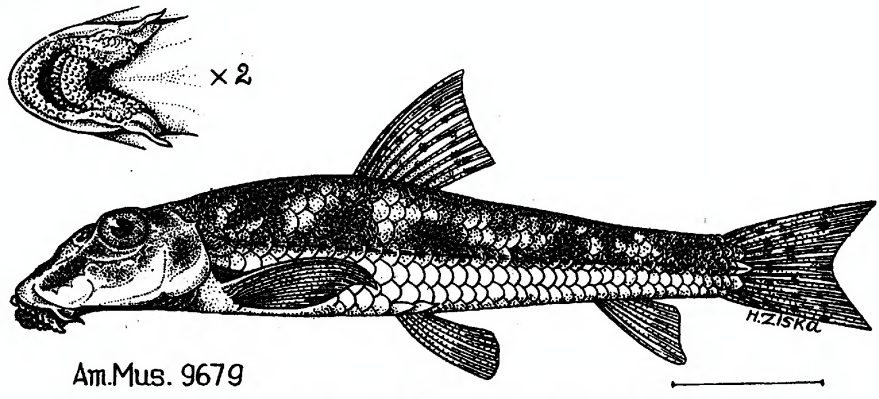

Fig. 2. *Pseudogobio papillabrus*, type.

Pseudogobio papillabrus, new species

DESCRIPTION OF TYPE.—No. 9679, American Museum of Natural History, from Kienning, Fukien, collected August 1 to 8, 1926, by Clifford H. Pope.

Length to base of caudal, 119 mm. Depth in this length, 4.9; head, 3.5. Eye in head, 5; snout, 1.9; interorbital, 4.3; maxillary, 3.2; width of mouth, about 4; width of body, 1.6; depth of peduncle, 3.5, its length, 2.2; pectoral 1.3; ventral, 1.6; longest dorsal ray, 1.4; longest anal ray, 2; caudal lobe, 1.3. Barbel in eye, 1.5.

Dorsal, 9; anal, 8. Scales, 41.

Body not compressed, lower surface of head and breast flattened, ventrals in a horizontal plane and pectorals nearly so; vent close behind ventral axils, more than five times as distant from anal origin. Interorbital gently concave, the orbital rims raised; profile of snout slightly concave; eye somewhat superolateral; mouth small, inferior, curved, maxillary reaching about half-way to below front margin of eye;

lips expanded, papillose, flaring at the sides, free behind across chin, a cross furrow separating off the posterior part of the lower lip as a single broad papillose pad; maxillary barbel rather short, stout; gill-membranes rather broadly joined to shoulder-girdle under posterior margin of eye. Dorsal and anal without spinous rays; dorsal origin equidistant from end of snout and middle of peduncle; ventral origin about under center of dorsal base; pectorals somewhat falcate with curved tips, reaching six-sevenths the distance to ventrals, ventrals four-sevenths to anal; caudal shallowly forked, with pointed lobes; posterior margin of dorsal concave. Scales with well-marked, slightly radiating striæ; breast scale-less backward to pectoral axils; lateral line complete, straight.

A dark stripe downward and forward on the snout from eye, dark area on opercle, and dark mark above the pectoral base; six or seven dark blotches along the middle of side, and back irregularly spotted; the caudal with a few dark specks.

Measurements of the other specimens are given in the following table.

Standard Length	Depth in Length	Head	Eye in Head	Barbel in Eye
45 mm.	7.5	3.5	4.1	1.9
46	6.7	3.5	4.2	2
47	6.5	3.5	4	1.6
47	6.7	3.6	4.2	1.3
48	6.5	3.5	4.1	1.5
49	6.5	3.6	4.1	1.5
50	6.7	3.5	4.1	1.6
50	6.6	3.6	4.1	1.1
53	6.6	3.6	4	1.4
54	6.6	3.7	4.1	1.5
57	6.3	3.6	4.1	2
59	5.9	3.7	4	1.5
61	6.1	3.7	4.5	1.4
62	5.8	3.6	4	1.5
62	5.8	3.7	4.2	1.5
65	6.	3.6	4	1.4
66	6.5	3.6	4	1.4
66	6.5	3.5	4.1	1.5
69	6.4	3.5	4.5	1.5
69	5.5	3.6	4.3	1.6
69	6	3.7	4.1	1.6
69	5.5	3.7	4.2	1.6
70	5.7	3.6	4.5	1.5
70	5.9	3.6	4.2	1.6
72	6	3.7	4.5	1.7
73	5.4	3.7	4.6	1.5
77	5.5	3.6	5	1.6
111	5.6	3.8	5	1.5
142	5	3.8	5	1.7

The scale-count on the three largest specimens runs from 40 to 41. Several of the smaller specimens have a dark crescent indicated on the caudal like the type of *P. labeoides.*

XXVII.—A NEW CATFISH FROM NORTHEASTERN KIANGSI

Leiocassis (Dermocassis) analis, new species

DESCRIPTION OF TYPE.—No. 9680, American Museum of Natural History, from Hokou, northeastern Kiangsi, collected June 22 to July 12, 1926, under the direction of Clifford H. Pope.

Length to base of caudal, 101 mm. Depth in this length, 5; head, 4.4. Eye in head, 7; snout, 2.8; interorbital, 2.9; maxillary, 2.7; width of mouth, 2.5; maxillary barbel, 2.5; width of head, 1.3; depth of peduncle, 2.8; its length, 1.5; dorsal spine, 1.6; pectoral spine, 1.6; longest dorsal ray, 1.3; pectoral, 1.5; ventral, 2; longest anal ray, 2.8; caudal, 1.4; length of adipose, 0.9; its height, 7.5; dorsal interspace, 1.

Dorsal, I,7; anal, 23½.

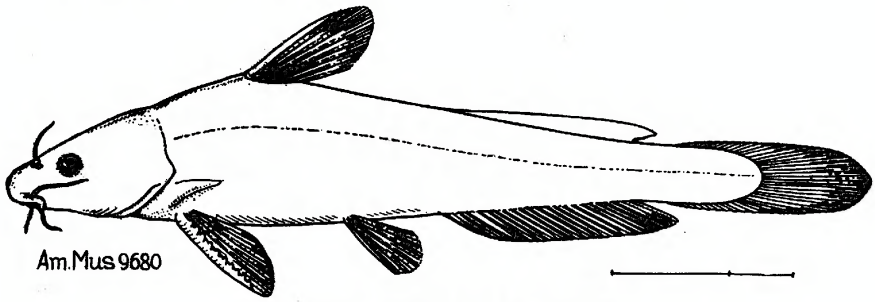

Fig. 3. *Leiocassis analis*, type.

Body moderately compressed; eye somewhat superolateral; interorbital flattish across the top, dropping to the eye at the sides; snout extending distinctly beyond the transverse, slightly curved, inferior mouth; with rather thick striate lips; orbital rim free, except imperfectly behind; top of head covered with thick skin; the backward process at the occiput about meeting that which extends forward from the dorsal plate; gill-membrances narrowly joined at base, free from isthmus; scapular process exposed, pointed, extending two-thirds the length of the pectoral spine. Dorsal spine rugose, striate, but without serration behind; pectoral spine smooth in front and barbed behind; pectoral reaching three-fifths the distance to ventral; ventral almost or quite to anal origin; adipose low, free behind; caudal narrow, rounded subacuminate, with keels on the peduncle above and below; dorsal origin slightly nearer anal origin than end of snout, its distance from end of snout about 2.2 in that from base of caudal.

Color in spirits, dusky; paler purplish gray below; unmarked.

This single specimen is sufficiently unlike considerable other material examined from China to leave no doubt as to its specific distinctness. As allied species are understood by the writer, its resemblances are

with *L. tenuis*, than which it is deeper with a smaller eye, and with *L. ussuriensis*, than which it has a much longer anal.

The several allied catfishes of the subgenus *Dermocassis*, in China, may be differentiated as follows.

1. Caudal well forked; snout more or less elongate or swollen. (*Nasocassis*) Nichols, 1925, equals (*Rhinobagrus*) Bleeker, 1865.
   Caudal emarginate, truncate or rounded; snout not elongate or swollen. (*Dermocassis*) Nichols, 1925.....2.
2. Caudal distinctly emarginate or notched. Dorsal spine without appreciable serration.....3.
   Caudal subtruncate to rounded.....5.
3. Depth in length to base of caudal, 5 or less. Bases of vertical fins dark; distal portions of dorsal and caudal and center of anal slightly dusky. *medianalis* (Regan) 1904. Yunnan.
   Depth in length to base of caudal, 6 or more.....4.
4. Anal rays, 19. The nasal barbel does not reach beyond and the maxillary barbel reaches somewhat beyond the orbit....*pratti* (Günther) 1892. Szechwan.
   Anal rays, 16 to 18. The nasal barbel reaches posterior border of eye; the maxillary barbel reaches operculum....*emarginatus* Regan, 1913. Szechwan.
   Anal rays, 17. The nasal barbel reaches posterior border of eye; the maxillary barbel a little farther back.....*similis* Nichols, 1926. Fukien.
5. [1]Dorsal spine low, about 2 in head.....6.
   Dorsal spine higher, less than 2 in head.....7.
6. Peduncle more than twice as long as deep. A broad dark lateral band, at least posteriorly.....*tæniatus* (Günther) 1873. Shanghai.
   Peduncle less than twice as long as deep. No noticeable dark lateral band. *truncatus* Regan, 1913. Szechwan.
7. Depth greater (5 in standard length at 100 mm.; 5.9 at 200 mm.). Eye smaller (7 in head at 100 mm.; 8.5 at 200 mm.).....8.
   Depth less (6.6 in standard length at 132 mm.; 8 in length at 260 mm.). Eye larger (5.5 in head at 132 mm.; 7 at 260 mm.). Anal rays 20 to 22. *tenuis* (Günther) 1873. Shanghai.
8. Anal rays about 23.....*analis* Nichols, 1930. Kiangsi.
   Anal rays about 18.....9.
9. Mouth inferior transverse.....*ussuriensis* (Dybowski) 1872. Ussuri R.
   Upper jaw extending little beyond the lower. *taphrophilus* (Sauvage and Dabry de Thiersant) 1874.

[1]*L. albomarginatus* Rendahl, 1928, Anhwei, comes here. Caudal with a broad white margin; depth, 4.2 to 5; eye, 5.3 to 6.8 (at 49 to 90 mm. standard length).